

**HELIOTROPIUM PROCUMBENS (BORAGINACEAE):
NATIVE OR ADVENTIVE IN THE USA?**

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ABSTRACT

Heliotropium procumbens is a widespread weedy species of North America, South America and elsewhere. It occurs in the Gulf Coastal Region (Texas, Mississippi and Louisiana) of the USA and the question is posed: is it a native or an adventive in that area? After comparing the time and location of the various Texas specimens assembled over the past 150 years or so, it is concluded that the species is native to the area concerned. *Phytologia* 92(2): 151-155 (August 2, 2010).

KEY WORDS: *Heliotropium procumbens*, Texas, Louisiana, Mexico, adventive.

Heliotropium procumbens Mill., an annual or short-lived perennial herb 10-70 cm high with white flowers arranged in terminal scorpioid, ebracteate, spikes is reported to be a “weedy plant” (Al-Shehbaz 1991) that “usually grows on damp alluvial soil in flood plains, pinelands, mud flats, waste land, fields, and coastal hammocks.”

The type of the taxon is from South America (Colombia). It occurs throughout most of that continent and northwards into Central America and Mexico (Fig. 1), extending into the USA along the Gulf Coastal Regions (Fig. 2). Whether it is native to Texas and Louisiana is debatable, hence the title of the present paper.

Relatively early collections of the taxon are known from both Louisiana and Texas but are absent for the rest of the Gulf Coast, although Ward and Fantz (1977) report an introduced Florida (Calhoun Co.) collection, first made in 1976, where it is clearly adventive. The present paper is concerned with its distribution and/or adventive status in the state of Texas.

To this end, we have surveyed the literature and examined all of the collections on file at LL-TEX and recorded the earliest collections from the state, these listed in Table 1. As will be noted, the earliest known collection of *H. procumbens* was made in 1843 in eastern Texas (Austin Co.) by Lindheimer; the next earliest collection, also by Lindheimer, was made in central Texas (Comal Co.) in 1850. The distribution of the first 10 collections known to be from Texas is shown in Fig. 3. Thereafter, numerous collections were made over a large region of the state, as shown in Fig. 2.

Table 1, Early collections of *H. procumbens* from Texas.
(Arranged chronologically; data mostly from Johnston, 1967)

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1. **Austin Co.**, *Lindheimer*, 1843
 2. **Comal Co.**, *Lindheimer*, 1850
 3. **Val Verde Co.**, *Schott*, 1851-52
 4. **Harris Co.**, *Fisher*, 1872
 5. **Hidalgo Co.**, *Neally*, 1889
 6. **Uvalde Co.**, *Plank*, 1891
 7. **Hays Co.**, *Stanfield*, 1896
 8. **Cameron Co.**, *Chandler*, 1913
 9. **Brazoria Co.**, *Palmer*, 1914
 10. **Jefferson Co.**, *Palmer*, 1917
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Clearly, *Heliotropium procumbens* was widely distributed early on in the state, this presumably reflective of a long history in the region. It is likely that some of the earlier professional collectors in the area, such as Berlandier (1828-1834) and Drummond (1833-1835), failed to collect the species because of its relatively restricted, edaphic, proclivities (heavy soils along waterways). In short, we conclude that

the species concerned is native to the state of Texas, and possibly coastal Louisiana.

ACKNOWLEDGEMENTS

Figures 1 and 2 are based largely upon specimens at LL-TEX and those cited by Johnston (1966); additional records from the USA were obtained from the USDA web sites. Jana Kos and Matt Turner kindly proof read the paper, as did Guy Nesom.

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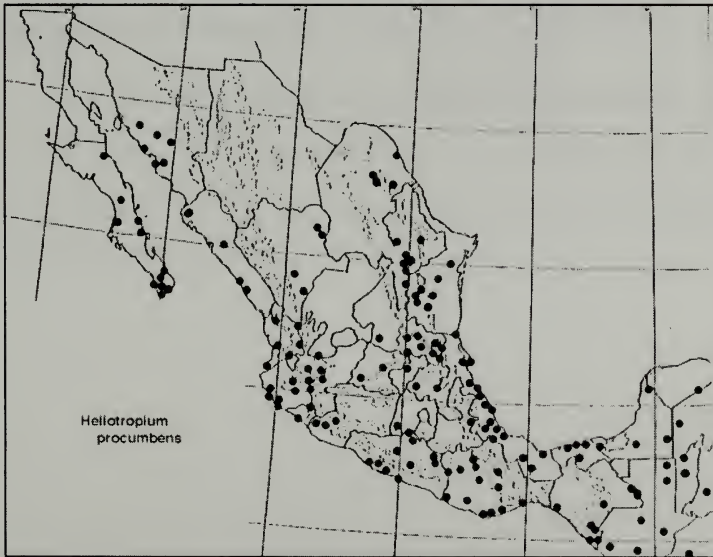


Fig. 1. Distribution of *Heliotropium procumbens* in Mexico (based upon specimens at LL-TEX and data on MEXU web pages).

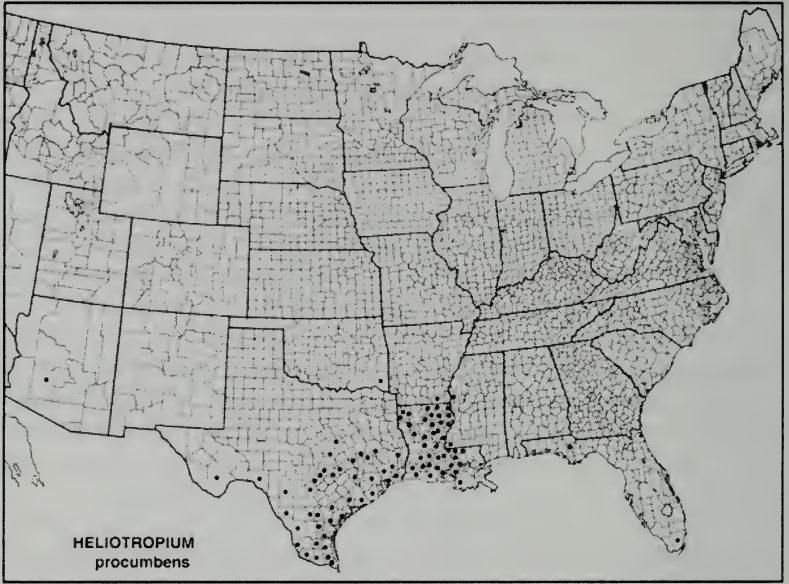


Fig. 2. Distribution of *Heliotropium procumbens* in the USA.

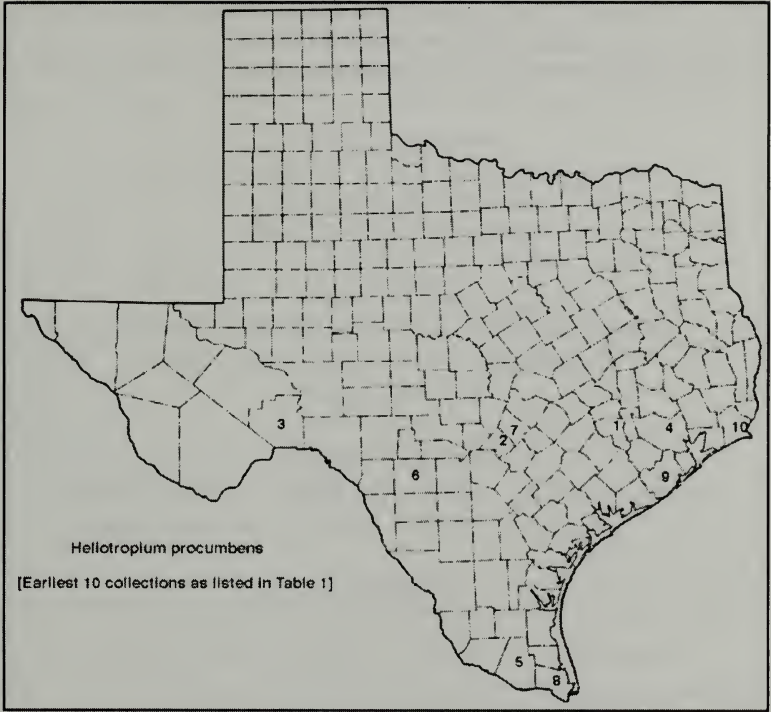


Fig. 3. Distribution of first 10 collections of *Heliotropium procumbens* in Texas, as listed in Table 1.